

Figure 1

Regions altered in NB	Copy number change	SNPs
1p36.3	Single-copy loss	56
2p24	Amplification	50
3p14.3-p25.3	Single-copy loss	50
9p21	Single-copy loss	50
11q23.3	Single-copy loss	50
14q32	Single-copy loss	50
16p12-p13	Single-copy loss	50
17q23-q25	Single-copy gain	50
Control regions		
7q22-q31	No change	20
11p15.5	No change	20
12p12-p13	No change	20
17p13	No change	20
	<b>TOTAL</b>	<b>486</b>

Figure 2

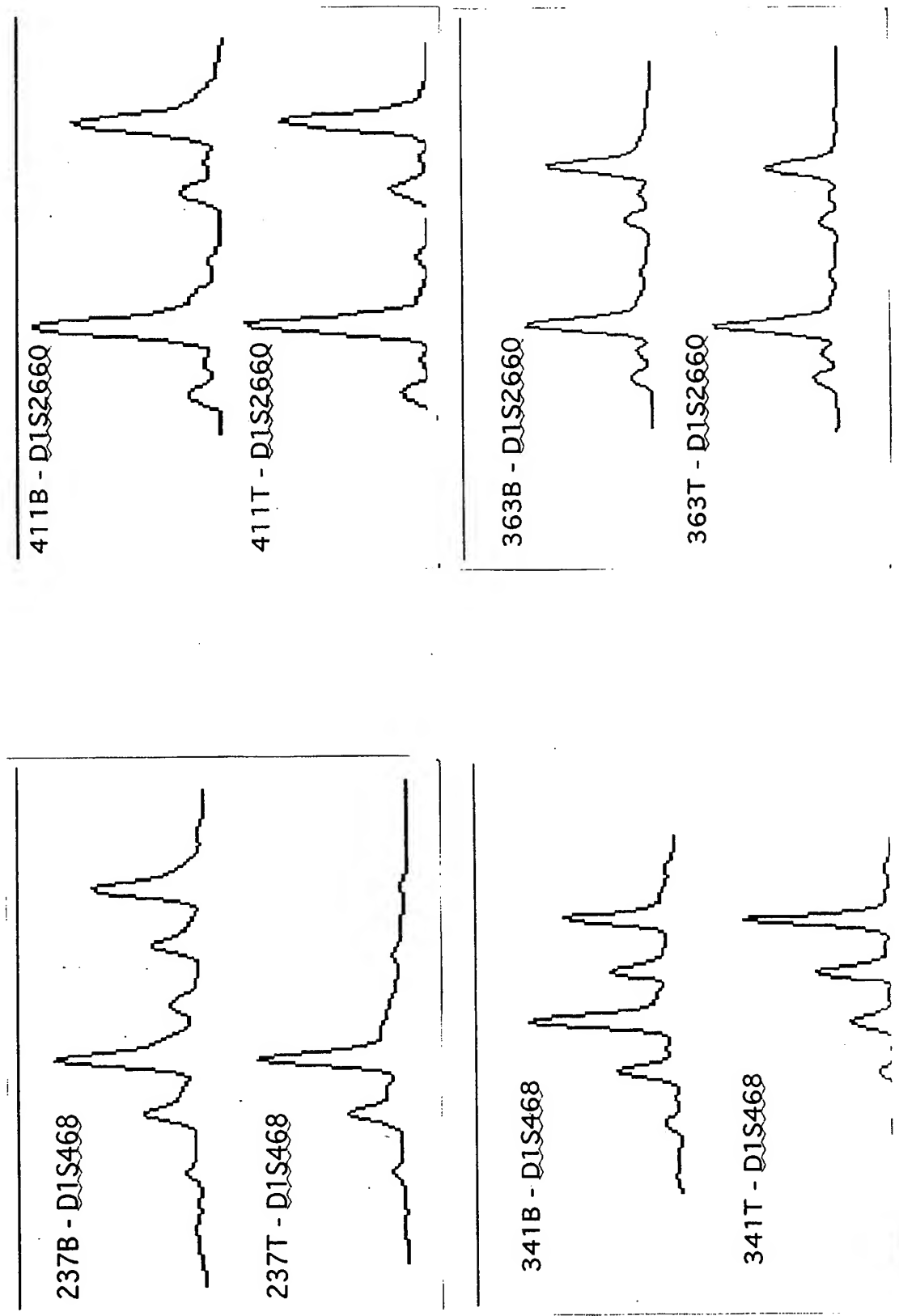
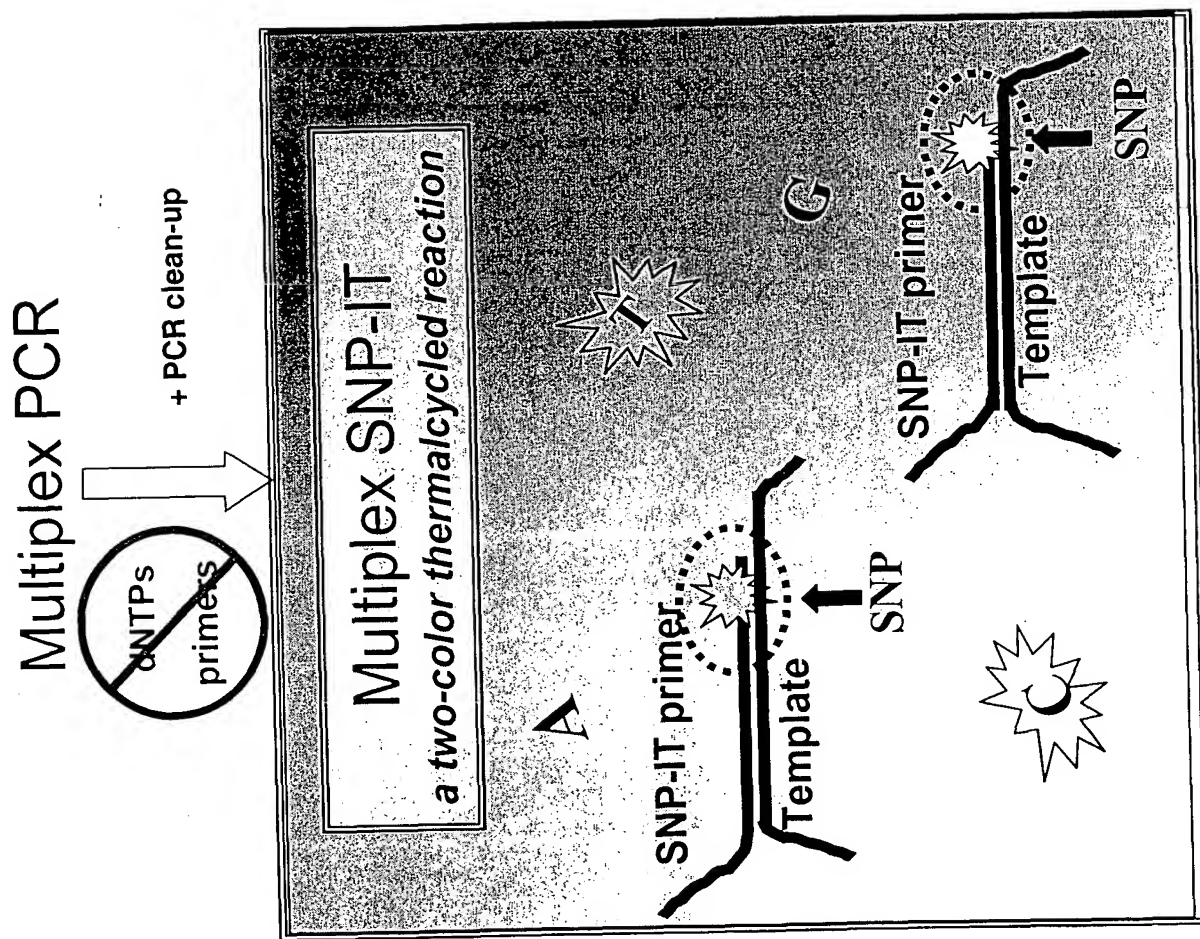


Figure 3



#### Multiplexing

- Typically 12-plex to 48-plex
- Efficient use of DNA samples
  - 0.17ng DNA/GT at 12-plex
  - ~ 80 pg DNA/GT at 24-plex
- Enables high-throughput

"All in one well"

- Original PCR plate can be the "home" for all biochemical steps
- Sequential rounds of reagent addition and thermocycling
- Facilitates automation

Figure 4

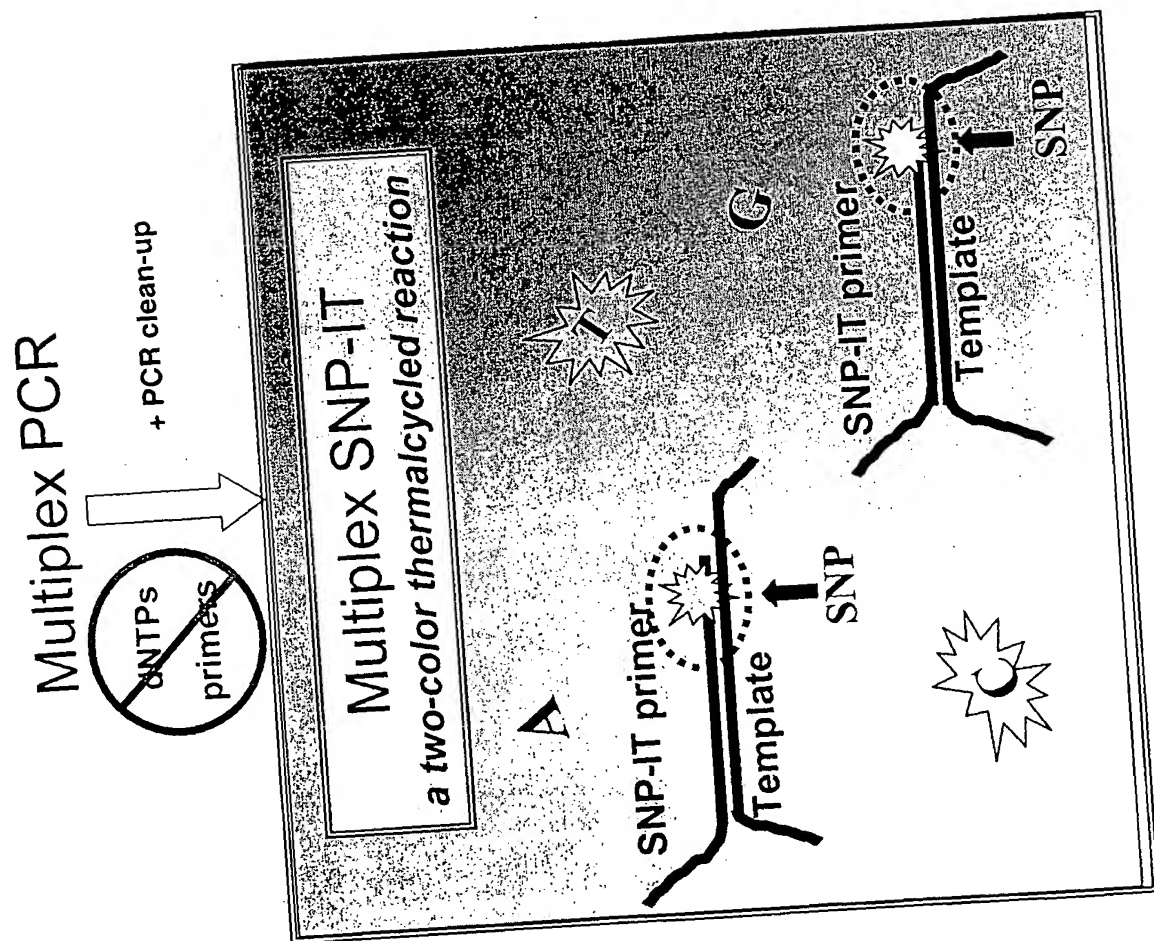
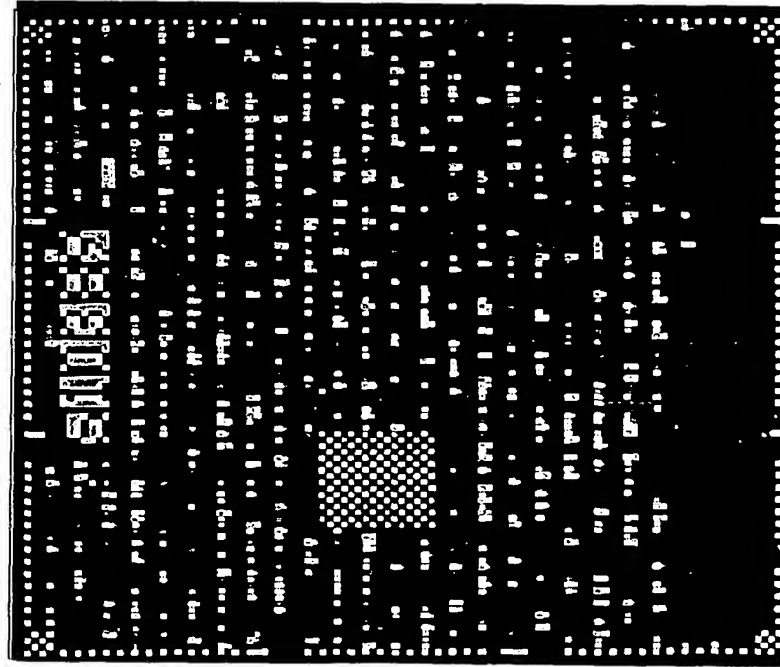


Figure 5



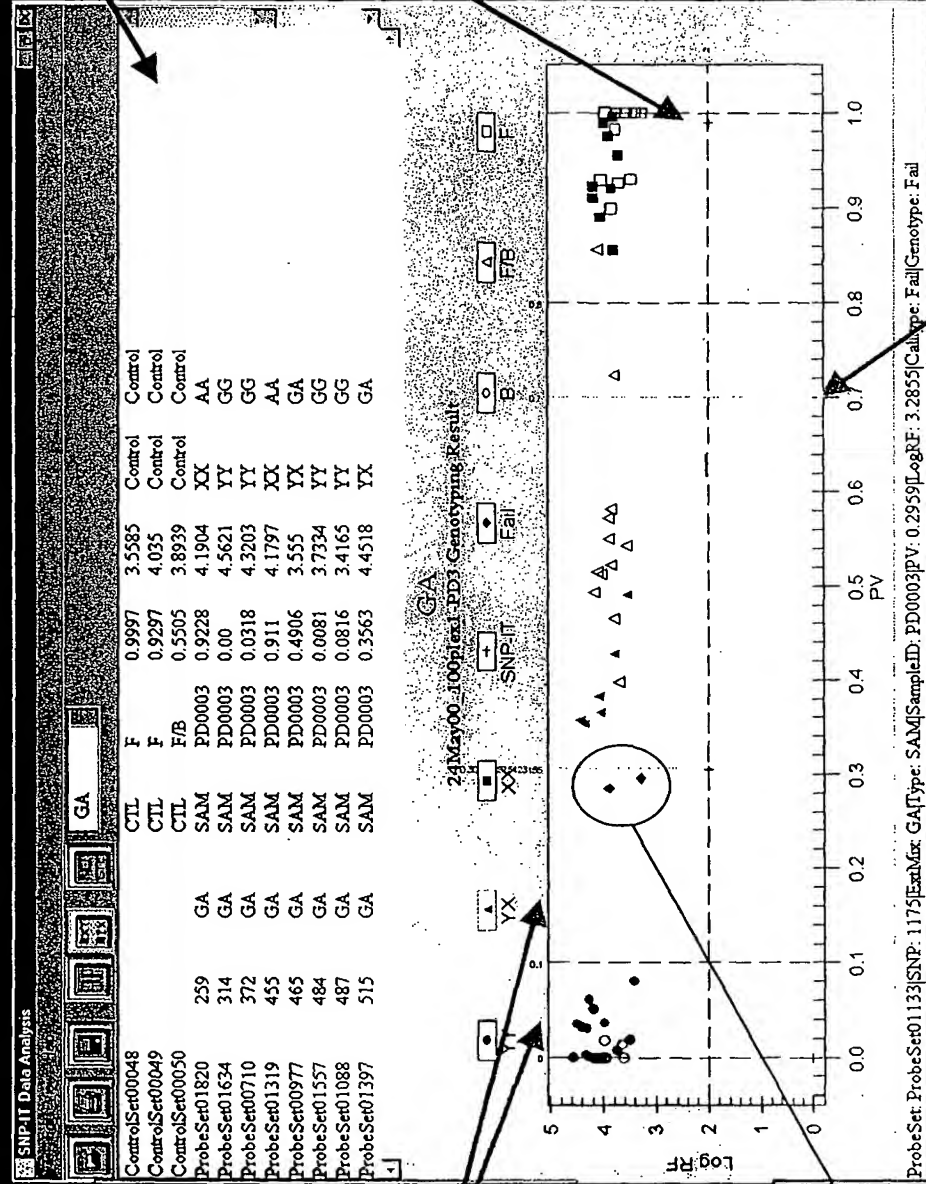
Orchid's proprietary SNP-IT assay  
-Single-base primer extension

Affymetrix GenFlex™ arrays  
-2000 20-mer tag sequences  
-Balanced G/C content  
-Generic chip design  
-Assay flexibility

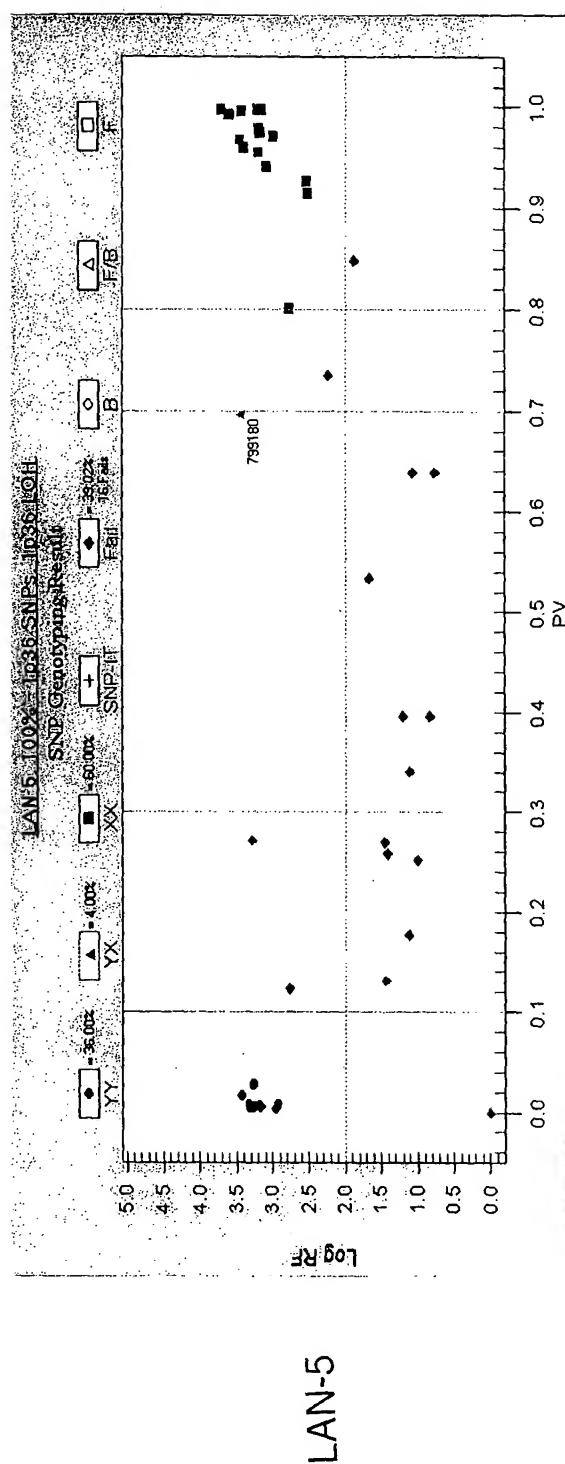
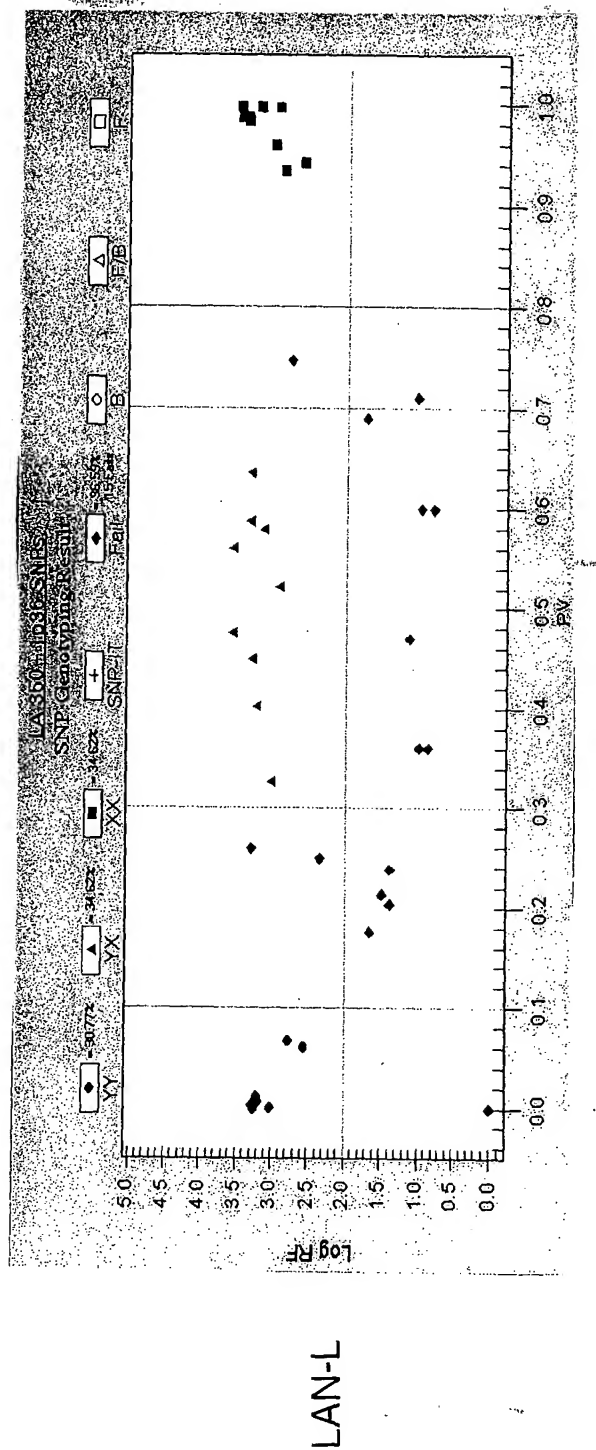
SNPcode typically run at 12-plex or 24-plex for PCR and SNP-IT

Routine use of up to 1824 tags simultaneously

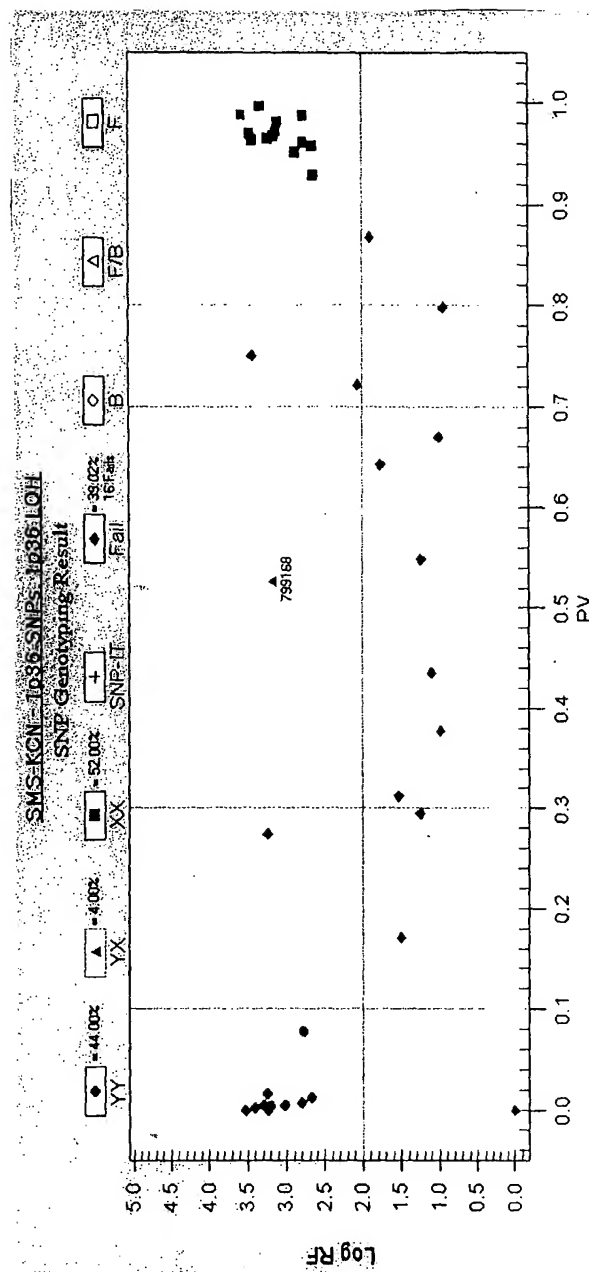
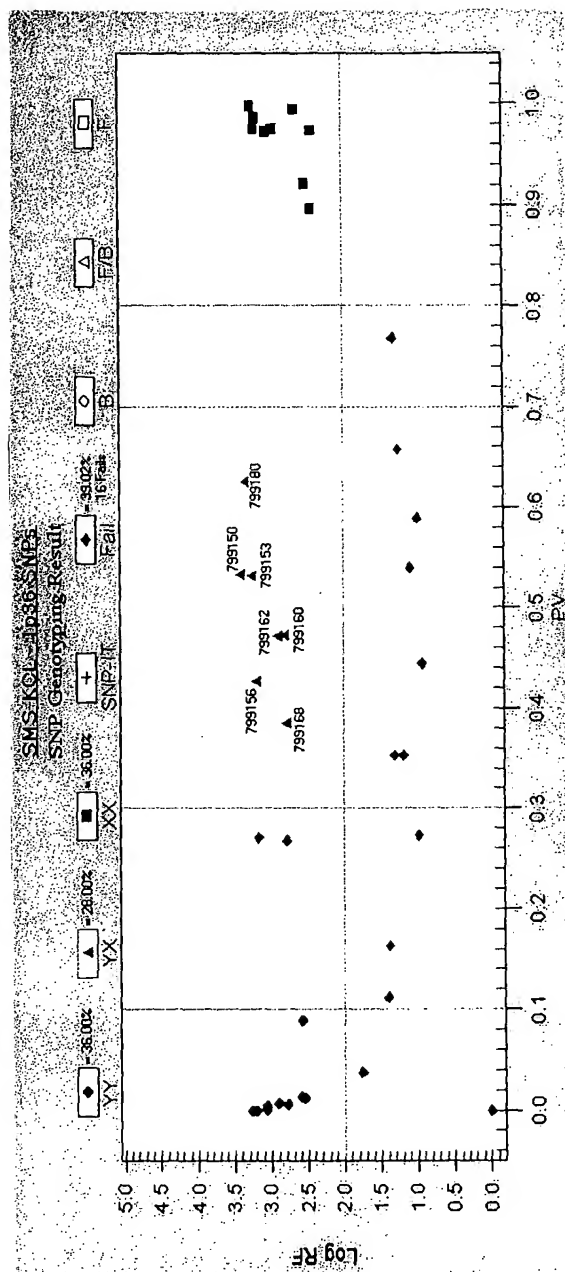
# Figure 6: Orchid Designed and Developed SNPcode Software



Figures 7A & 7B

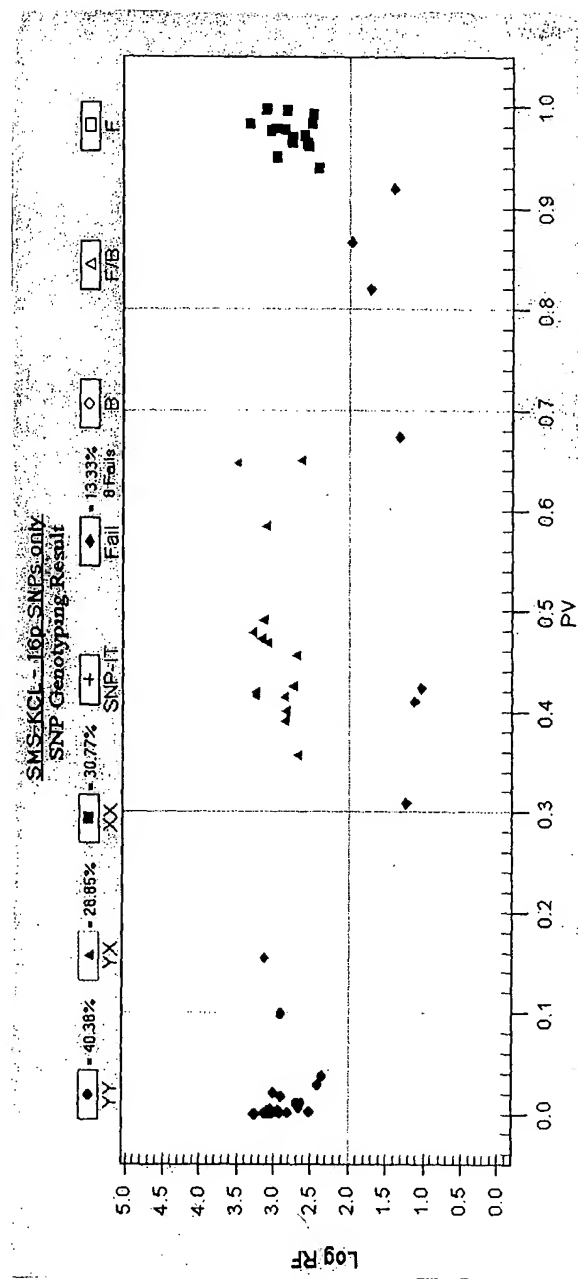
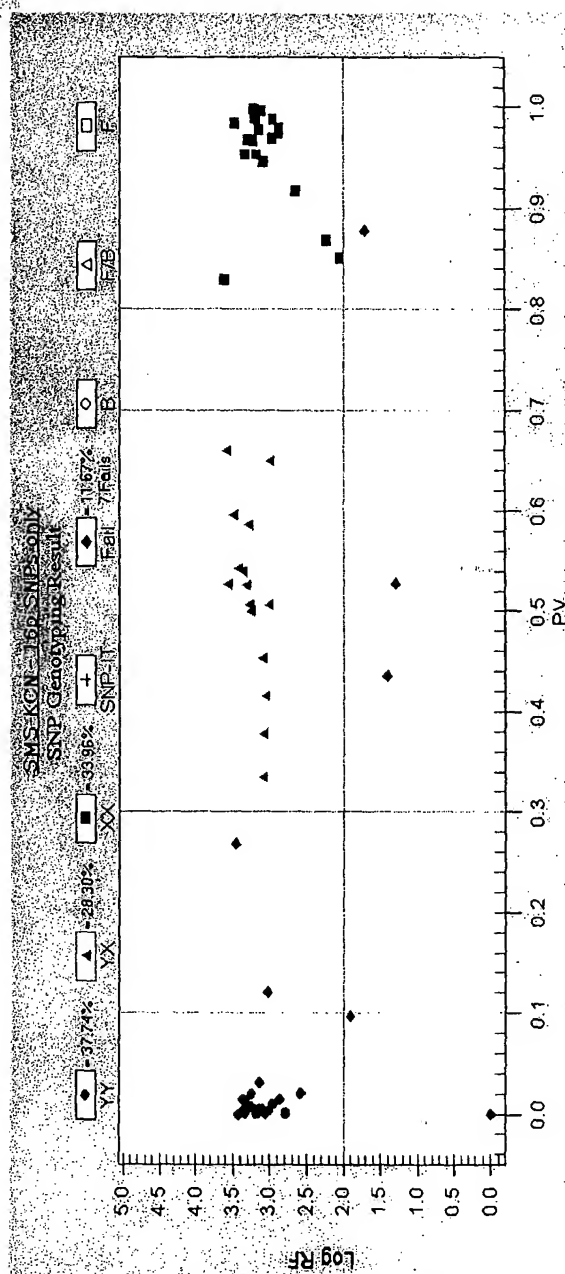


Figures 8A & 8B

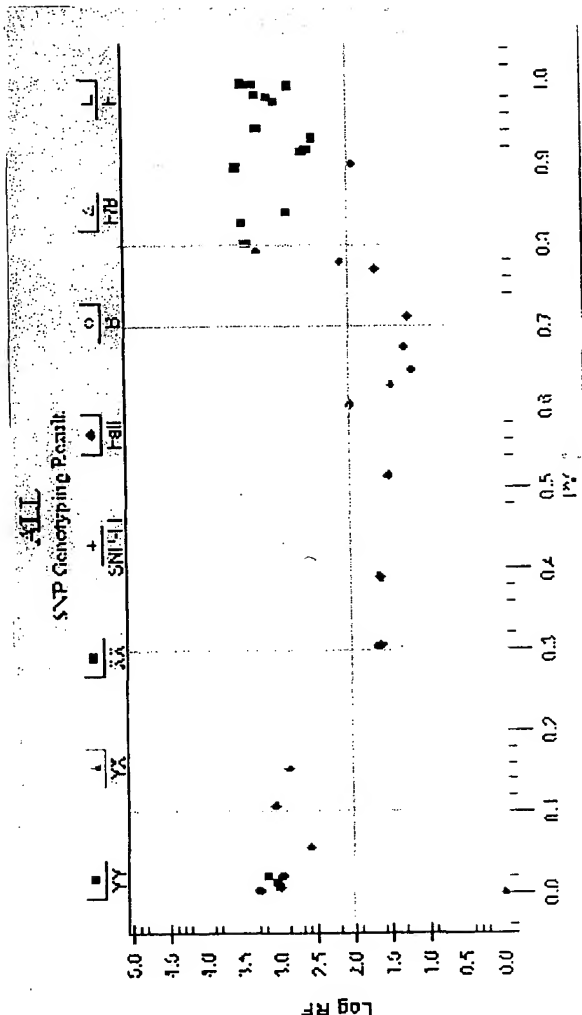




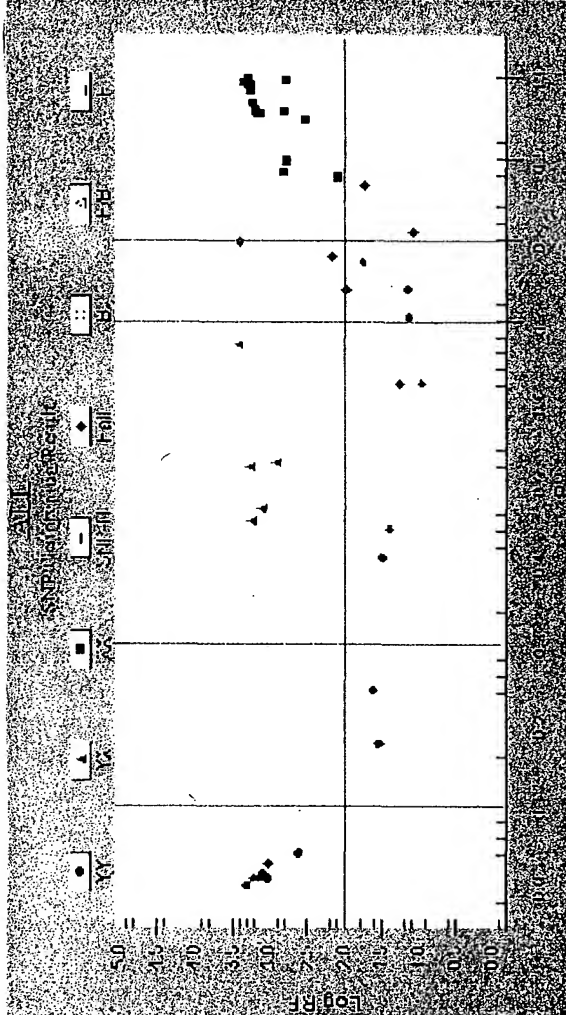
Figures 9A & 9B



Figures 10A & 10B



CHOP 341  
Tumor 1p36  
LOH



CHOP 341  
Blood

Figure 11A

CHOP MARKERID	ORCH SOURCEID	SNP Alleles	SNP-IT primers - tagged with GenFlex tags
799057	GenFlex16p_1	GA	ATTGATCGTAACCTCGGTGGACTTACCAACAAGCCATTCAATTAT
799058	GenFlex16p_10	GA	TTTAGTCGTTTTGCCGAGGCCATGACAGGGCCCCAGCACACGGGGC
799059	GenFlex16p_11	GA	CTTAACATATTAGCGTCGGTGAACCAGAACTGTTTCAGAGGAATCT
799060	GenFlex16p_13	GA	CTATATCCTTACCAGCGTATGTTCTAGACCAAGGTGGTTATCCCC
799062	GenFlex16p_15	GA	TGCTACCTTTCCGTCGAAGATTTTCTAATTGCAAGTGACGCACA
799068	GenFlex16p_20	GA	AATACGCTGAATAGAGCCCCCTCTCTGGAGCTAAGCCTCTCAAAG
799070	GenFlex16p_22	GA	GACGATCCTTATACCTCGATGACTGGTGGCTACCTTTACCTCAGCC
799072	GenFlex16p_24	GA	ATAAAGCTCTATACCTCCGCGAGGAACCTCTGAGAGCAATAACTGAT
799076	GenFlex16p_29	GA	ACTCCAGTGCCAAAGTACGATGACTCTTAGTTTGAATAACAAGC
799079	GenFlex16p_31	GA	CGCCAGAGTTATGTTTGGAGTATTAGGGAGTCCGCATTCCTCCAG
799081	GenFlex16p_34	GA	TGCCCTATTGTCGTCGGACAAACAGCACCTGTTCTTAGACGC
799084	GenFlex16p_38	GA	TAATCTAATCTGGTCGCGGTAGCTTGGATTTTCTTCCTTCAT
799085	GenFlex16p_39	GA	TATATTAGTTCTGACCGCGCGGTGCTTGACAAGTTGCCCTGGGAT
799086	GenFlex16p_4	GA	TCGTATATTGGTGACTAGCGGGTCTTATGGTTGCTGGGGTGGG
799087	GenFlex16p_40	GA	TGTGATAATTTCGACGAGGCCGCGGAGGCTTGGTCATTCCTTCCTC
799137	GenFlex16p_42	GA	CTTCAAGTACCTTAGCTCGCTTATCCTGGCAGATAGTCTGTCAAT
799089	GenFlex16p_44	CT	GTGATTAAGTCTGCTTGGCCTCGCTTGAATTCAGGCAAAAGTT
799091	GenFlex16p_46	GA	GTGCGTAGTTCTGTATAGCACAGCCCTGGCTCTTGTCATGTAGAG
799092	GenFlex16p_47	CT	GTCGAGGATTCTGAACCTGATTCAGTGATCCTCGGTAATATT
799093	GenFlex16p_48	GA	CCATAGTATCCTGTAAGCGTTGCTTTTCTGGAAGCGGTAAGA
799094	GenFlex16p_5	CT	CCATGTACCTATATCGTGGTGGAGAGGATCATGGTGGCCTGGAC
799095	GenFlex16p_50	GA	ACACAAAGTCGATACGTCGCGAGTGATTGGATGCGTGCAGAAAG
799096	GenFlex16p_51	GA	ATTAAGCGACGTTGGTCTAGGGTCTCATGTGATGGTCTGGGGCCT
799097	GenFlex16p_52	GA	TATTAAGGTTGTACCCCTCGGACTTTGTCTGGAGTATTCATGCCAT
799098	GenFlex16p_53	GA	GTAACGAATTATACCCCTCGGGACTTGTACCTCCCAGTGGGGAC
799100	GenFlex16p_55	GA	CTAACGAATCTGGGACGTGCGAGGGGAGACTCTGGTTTCGCCCTTC
799138	GenFlex16p_56	CT	CGTTCCTAAAGCTGAGTCTGGCTACAGCCACAGGGAAGTTTCACA
799101	GenFlex16p_57	GA	CTAAGTAATCTGGTCCGGAACATTACAGCAAAAGTCACATCTTAT
799103	GenFlex16p_59	GA	GGACGCTTGACCGGACTTATACAGAAGTGACAGCAGGAGACGCC
799105	GenFlex16p_60	GA	GGATGGGTTCCGTCCTATTACAAGCGTGGCTGCAGGGTCTCCC
799106	GenFlex16p_61	GA	GGATACTATCCGTGCGTGTACGTGATGAAGTATCACCCCTGGCT
799108	GenFlex16p_63	CT	GCTAACAGTTCGTCACATGAGGCTGTGAAGTTTGCAGCTGTTT
799139	GenFlex16p_65	GA	GTTTCTTATTAGCGAGGAGCCAGAAGGATTATCCTCAGCCAGTC
799110	GenFlex16p_66	GA	CTATCAGGTTACGATGACTGGGCATCTTAAGAAGCTTCGACGCTC
799111	GenFlex16p_67	CT	CTAAGCCATTACGCGACATTACGAAGCAGAAGTTCAGATTGCCCA

Figure 11B

CHOP MARKERID	ORCH SOURCEID	SNP Alleles	SNP-IT primers - tagged with GenFlex tags
799112	GenFlex16p_69	CT	CTGCAAAGTTACGTGCGCATCTCTGAAAGCCCATGTGTTGCTCAT
799113	GenFlex16p_7	GA	CTCTCACGTTACGGCTGATTCTAAAGAAAAGTGACAAATACTCA
799114	GenFlex16p_70	GA	CTCTAGGCTTACGGCATGATTACAGGATTTGGCCGAGTCCCCAT
799115	GenFlex16p_71	CT	GCTCTAGGTTCCGGTACTAAGCAAGATGTGGTCTCCTGTGTGTA
799116	GenFlex16p_72	GA	TCGAACGTGTCTATTGGTACTGCCCCACGATAAACCAAACTCAC
799118	GenFlex16p_74	CT	ATAGACTAGCTGCGGTCAACTCTCTCCCTACCCAGCTCTGA
799141	GenFlex16p_76	GA	AATATCGTAAGACATCCGCGGAATCGAAGTACTGATACGGGGAGC
799121	GenFlex16p_79	GA	AACAGTCTAACCTACGGAGTCTGGATCGGCCAAGCACCCGGGAG
799122	GenFlex16p_8	GA	ATACGCTTACCGCACATAGGCTCCTAGAAATGCTCTGCTCTCC
799123	GenFlex16p_80	CT	GTAACCTATTCTGACTAGCACCACTCCAGGAAAACAGTTCTGA
799125	GenFlex16p_82	GA	GAGTATCTTACCTGGTCTAGGAGAAAGCTGGCTCTTTGGGGAGT
799126	GenFlex16p_83	CT	GTATCTAATTCGTGAGTCGGAAACATTTAGGCATATCACTGTTTT
799127	GenFlex16p_84	CT	GTAATACTTCGTGCGATGGAGATCAAAAAACAGTAGGCAGAGT
799130	GenFlex16p_87	GA	ATGTATCCGAAGTCGTAGTGGTTCAGCTGGGTGACTTGCACCAG
799132	GenFlex16p_89	GA	ATTTGACGAACGTATGCCCGGGGGAGTCCAGCGTTGACAGAGC
799134	GenFlex16p_91	GA	AAATTGCCCCCTAGATCGAGCTCACCAATGGTCCACGTGTTCA
799135	GenFlex16p_92	CT	AATTATCGGAACCTCGTCTGAAGTTGGCAGGCCAGGGACAACA
799136	GenFlex16p_94	CT	TATTTACGAACCTTGGAGCCTTTCCAAGATCTTTCTTGACAAAC
799142	GenFlex1p36_1	CT	AGCGACTGTAAACTAATCGGGTTTATGTCTCTGAGCGAGCAGAGA
799143	GenFlex1p36_10	GA	GGAACCTATTATAGAGCCGGCTGTCTAAAGGCAGGCAGGGGTGAG
799144	GenFlex1p36_15	GA	TCCAGGTCCTTAACGACGCTGGGTCACTGAGTGTCTTCCCTAAAG
799145	GenFlex1p36_18	GA	TCGAGTCCCTTAAAGATCGCTACTATTTTCCCAATGGGTCTGAGTT
799146	GenFlex1p36_2	CT	TCGATACGTTTAACTCTCCGGCAAAGCCCTCTTTCACCTCTGTGT
799147	GenFlex1p36_20	GA	CCATCCGATTAAATACCGTGGGAGCCCCCTGCCCTGTAGCTCTC
799148	GenFlex1p36_3	GA	GATTACGTTAAGTTACGGCGCAAGAAAGCCCTGCCAGCTCTTT
799149	GenFlex1p36_31	CT	GTTGACCGTTAGTTATGCGATTCTCTGTATGTTTCATACATTAG
799150	GenFlex1p36_35	GA	GGTTCGCTTACGTTGCATAGAACTGGAAGCATTGAGGGCTCTGG
799151	GenFlex1p36_4	GA	CGTATCGCTTAACCTCTATGGGCAGGAAAGCCGGTTCCAGAGTC
799152	GenFlex1p36_41	GA	CGTACAGCTTACCTACTATGCCTTCTGGTCATACACATTCAATTA
799153	GenFlex1p36_56	GA	CGTGCAAGTTACCGAGCTGATGATGGCTGCTGAGTTTACTGAGGT
799154	GenFlex1p36_57	CT	CGTCGCGTTAGACAGCTCATGGTGGTCAGTAAAGAGATAAAGGA
799155	GenFlex1p36_58	GA	TCGTCACGTTTAGGACTATGTCCATGGGTGTTTTCCTCCAAACAGTG
799156	GenFlex1p36_60	GA	TCGAAGCGTTTAGACCATGTTGGCACATCTGGAGAATGAAGATTG
799157	GenFlex1p36_62	GA	TCGGACGCTTAGATGACTTCAAAAACAATGTCTTCTGTTCCCC
799158	GenFlex1p36_64	GA	CGTCTAGCTTAATACCTCTGTGCTGGCTGGCCTTAGGTGCCAC

Figure 11C

CHOP MARKERID	ORCH SOURCEID	SNP Alleles	SNP-JT primers - tagged with GenFlex tags
799159	GenFlex1p36_66	GA	CGTCTCAGTTAATAGTACGGGATTCAATAAAATAACATGGCTAAA
799160	GenFlex1p36_69	GA	GCAATCCGTTATGTAAAGGGAACACGACGACGACGACGAGGAACA
799161	GenFlex1p36_72	GA	TGACCAACGTTTCAGAAAGCTGGAGGAAATCAACGAGATATATTAGC
799162	GenFlex1p36_77	GA	CCATATACTTACACAGCAGGAAATCTGTGCCATGAAGTCGCACCT
799163	GenFlex1p36_87	GA	CTATCACGTTAGATCCACTGCTGTCTATGGCCTCCTCCTGGACTGC
799164	GenFlex1p36_89	GA	CGTCACGTTACCTACATGATAAAGGAGAGGCAAGGTCCTGTTTG
799165	GenFlex1p36_90	CT	CGATCCGATTACAGGCCGATCAGAGGCAAGGTCCTGTTTGGAGGA
799166	GenFlex1p36-11	GA	CCATCGGATTACACACGAGTTGAGGAAAGGCCGCTTGCCTTTTG
799167	GenFlex1p36-16	GA	CCTGCACGTTAGAACACTGGTGGGGACAAACACCCGCATGCACAC
799168	GenFlex1p36-21	GA	CTCGCGGCTTAGATCAGCTTTGGCAACGGTGAAGAGGCCTAGAA
799169	GenFlex1p36-28	GA	CCCTCGCTGGAGATCGAATATGGAAGGAGAAATAGTGGAGGGTGC
799170	GenFlex1p36-29	GA	CGCCACGCTTAGAGCGAATCTCCACGAGTGACTGTGGGGAACAG
799171	GenFlex1p36-33	CT	GCGGCGGTTTCGACATAATTCTGCAAGCGACCCCGACCAATCTAC
799172	GenFlex1p36-5	GA	GCCGACGCTTCGACAGAATTACAGGCCTCCAGGAGCTCACACTC
799173	GenFlex1p36-6	CT	GTAGGCGATTCTAGCCAATTACAAGATCTACATCGTGATGAACTA
799174	GenFlex1p36-63	GA	GCACGTCGTATTAGGTAGTCAGGACACACITAAATCCACAGAGTCAC
799175	GenFlex1p36-65	CT	ACTCTCGACCTAGCGTAAGGTCTGACCTTCAGGGTCCAACTACAG
799176	GenFlex1p36-68	CT	ATCCACGATCCTAGAGTCGGTGCCTACTCTCCCAACCCAAA
799177	GenFlex1p36-79	GA	ATCCATAGTCCTAAGTCCGGTCCGACACGCGGTCATAAAGC
799178	GenFlex1p36-80	CT	ACGCGGTCACTCAGCATATAACTCAGCICACGCAATTATGTTA
799179	GenFlex1p36-84	GA	GTGCTTGCACTAGTTGATAATCTGTGATATTCTCTGCTTAGAC
799180	GenFlex1p36-86	GA	GTGCGCGATTCTAGTTATGGGCTGTTCCCTGGACTGCTGACCTAG
799181	GenFlex1p36-88	GA	CGTCGGATTAGACCGGATCAAAATTAAGTGGGTGAACAATGTGACC
799182	GenFlex1p36-94	CT	CCCGGACATGGACGTTAAGTGAGATCAGTCCCTACCATGCACCTAC

Figure 11D

CHOP MARKERID	ORCH SOURCEID	SNP Alleles	PCR upper strand primer	PCR lower strand primer
799057	GenFlex16p_1	GA	TGTTTATCCATGCCATAAATTTTG	AAGCAGTGAATTGCTCAAACCA
799058	GenFlex16p_10	GA	ACGGACCCTGAGCACAGA	TGCATTTACACATAAGTGCATAATTAATACTA
799059	GenFlex16p_11	GA	TTTTGAAAGATAAGGGAAGCACA	ATGTTTACAAAGCTGTGTCTCTG
799060	GenFlex16p_13	GA	TAATACCTAGTCACCAACAGTGACC	ACTAGACTCAGGACTCCATTTACAGC
799062	GenFlex16p_15	GA	TTTCATGCGTATTTTAACACATAATG	GAACACACAAAACCCACAGGACAA
799068	GenFlex16p_20	GA	TGGGCTGTAGGGGCAATAT	TTGAACCCAGGTTTCCAGC
799070	GenFlex16p_22	GA	CAAGGACACTGGGAATCTTG	ACGAGTGCCTTCTGGAAGCTA
799072	GenFlex16p_24	GA	ATTGCGTTCTACACATTCATAGTGT	ACTGTGCAGCCAGAGATGG
799076	GenFlex16p_29	GA	TATGCTAAGATAACTAAGGCAAGGC	AGGAGGAGCTCAGAGTTGGACT
799079	GenFlex16p_31	GA	GGGTTTCATTGAGGTGAAC	AATCTATATTATCACCCCTCCCCAC
799081	GenFlex16p_34	GA	TCTGAGAGCAGTCGACAGGAG	CAGACAGAGAAATAGCTACAAAACAGC
799084	GenFlex16p_38	GA	GAGGACAGCACTGCTGAGTG	ATGGCAGAGGCTGTGTG
799085	GenFlex16p_39	GA	ACCCTACAGTCCCTTACCTTTCCAA	TTAAGGGGGCCTAAAAAGCTG
799086	GenFlex16p_4	GA	CATGGTCAAGGTCTGCATTCC	ATCTTCTCACTGCCCTACTTG
799087	GenFlex16p_40	GA	AGCTGGCTGAGATCGAGG	CCCAGTAAGAGAAATCATACGAGAAG
799137	GenFlex16p_42	GA	CAGCAGACAGACACAGGTCC	TNNGCCTTGGCTCTCAGCC
799089	GenFlex16p_44	CT	AAAAATATGACTTTTTTTTCCCCC	TAATTTTGGTTGCTATAGATTCCAAGTC
799091	GenFlex16p_46	GA	TATACACAATGCCTGCCTGACA	TTAGACACATGCTTAGAAGAAGATGCT
799092	GenFlex16p_47	CT	CCACTCCACAATAATCAGATTTTACAC	ATAAGTGGTCTCCCTGCTTATGG
799093	GenFlex16p_48	GA	TTTTTCACACATGGAGGGTG	AAAGGAATAAGGTCAAGACTTACATCC
799094	GenFlex16p_5	CT	AGCGATGCAGCAGAGAAT	TGGCCCCCTGCCCTTTTC
799095	GenFlex16p_50	GA	ATATTAGCATTATTAGCTGTACCTCACTTGT	TATATCTTATGTGCTTTTGAACGGC
799096	GenFlex16p_51	GA	TGTTAATGTTGGTGTGGCA	CCTTCTCTGTAATGATCAGGTCT
799097	GenFlex16p_52	GA	ATGACATCCAGACAGTTTCCTGT	TTTTGAGGTTTCTGGGGAAGG
799098	GenFlex16p_53	GA	TGGTGTGTAATGGCTGAATTG	AATCTCAGAATTTTCCAAGCCG
799100	GenFlex16p_55	GA	ACTAGGCAGTATTTTATGAGCCAGC	TGGCACAAGTAAAAAACTCCATAAATATT
799138	GenFlex16p_56	CT	AAGTTTGGTTTAAACATCTGACTGGC	TAGGATAAATTCCTGCCCATG
799101	GenFlex16p_57	GA	GGGAAATTCGAGGGATTITTC	TTCAACCCCCAAAAGGCCAA
799103	GenFlex16p_59	GA	TCCTCAATTCCTTACAGTAGAACAT	AGGGGAATGTAATTACGGAGGC
799105	GenFlex16p_60	GA	CCTTCCCCCACTACCTGG	CTGTCCCAGAGGCCCTTG
799106	GenFlex16p_61	GA	TCTCTGGCGCTCAAGACAC	TGGCTTATGACATTGCAATTT
799108	GenFlex16p_63	CT	AAAGTGAGTGACAGTGGTGCTCT	AACTTTTCATGACAGAGACAGGGA
799139	GenFlex16p_65	GA	ATCTCATGACCTGTGGCATTG	TGGTCTCTTCTGGGAGTGATCTAA
799110	GenFlex16p_66	GA	TCAGACTGGCTGTATTAAATCGTT	AAAAGGAAAGTCATCCTGAGTCTTACT
799111	GenFlex16p_67	CT	AGAAACGAAAACAGCAAGATAATA	TTTTAATACGGTAGTGACATTCTAGTAGAIGA

Figure 11E

CHOP MARKERID	ORCH SOURCEID	SNP Alleles	PCR upper strand primer	PCR lower strand primer
799112	GenFlex16p_69	CT	AAGAAGAAAGTATCCAAAACCTAGACAGA	CTATTTGTGTTTCATCTTCTGAAAGC
799113	GenFlex16p_7	GA	TCACAGCAAAAGGACCAGATG	ACATTTGTAGAGAATGCCCTTATATATGT
799114	GenFlex16p_70	GA	TTCCCTTGTTTTAATGGAGACGCT	TTTTAGGGCACGAGACAAGG
799115	GenFlex16p_71	CT	TGCCAGGCAACCACCTTAGTT	TGACCTCCCAGGTTCAATTAGC
799116	GenFlex16p_72	GA	GCATGACAGAGAAGGCACCT	TTAAAGCCTCATGGCTCTGG
799118	GenFlex16p_74	CT	ATGAACCTACAGAGCAAGATCGC	TCTCTGAGACCACTCAGCAACTC
799141	GenFlex16p_76	GA	TTTAAATGTTCTTTCAAAGACTAAAGCG	ATTAGAAATTGTAGCAAAACAGTTGT
799121	GenFlex16p_79	GA	TTGTTTGTCTTGAGGCACG	AACTCTCACATCAGCATGACACT
799122	GenFlex16p_8	GA	ATGGGTGCTTCACATTGG	AATGAACCAGGCAGGGAGAT
799123	GenFlex16p_80	CT	GTGTACGTGGGTGCACATATG	TGGGTGTGGAGCCAAGA
799125	GenFlex16p_82	GA	ATTCAATGCTGGACTTTTTCAG	ATTGTAGTTCTTCTGAAACCTTCAGTT
799126	GenFlex16p_83	CT	TTTGCTTGCTTTTCCATATAACTTA	CAAACCTCTAGGCTTTCATTG
799127	GenFlex16p_84	CT	ACGGTGGAGAATCTTAGGAATGTAA	ATGAAACCTCATAAAGGAAACGACT
799130	GenFlex16p_87	GA	TGCTGAGTAAACCCAAACTCTCA	TTCAGCCCATGTAGACTTGGTT
799132	GenFlex16p_89	GA	TTTGGGAAACTCCAGGTCAG	ATCAGGAACAGAGTGGTTACTGCA
799134	GenFlex16p_91	GA	AGTGGCTGGAAGAGGACTG	ACTTAGTTGGGCCAGGC
799135	GenFlex16p_92	CT	CACCTGCCCTAGAGACAGATTG	AGAAGGACTGGCTGGGATG
799136	GenFlex16p_94	CT	AAAAGAACTCAAGGTGAACCTGA	AATCGTTTGTCTGTTCTACTTTC
799142	GenFlex1p36_1	CT	TCCACGGCTTCCCCCTTA	TTTGCCAAACGGCATTC
799143	GenFlex1p36_10	GA	ATCCCAGGACAGGGTCATG	AAACGAAGTCCAGTGAGACG
799144	GenFlex1p36_15	GA	TCCCTTACCCAGATGTGAGGA	TCCCATCCAATTCAGTG
799145	GenFlex1p36_18	GA	GGAGGTGAGAACATAGCAGAGATAAT	GTTTCACTAAGAGGCAGCGAATC
799146	GenFlex1p36_2	CT	TAATTCAGTGAGTGTGAGTCCTTGG	TGAGTATGTTTTTCTATCTCTTTTGTCTAGAAA
799147	GenFlex1p36_20	GA	GGTCTGTGCAAACTCCCTCA	CCAACAACCTCTGGTGG
799148	GenFlex1p36_3	GA	GCAGGAACATTTGGCCTGT	TTAGGGCATCCACTGTCCCTG
799149	GenFlex1p36_31	CT	TGAATCCAAGCTCTTAACTTGCTACT	CAAGAACATATAATGAACGACCTTGG
799150	GenFlex1p36_35	GA	CAGGAACAGGAACGCAATG	GCATTTTCCAAATCAAGCTGAA
799151	GenFlex1p36_4	GA	ATTGGGTGTCTCAGAGGCATAAT	AAAAATAAATCACAGGTGCTCAGG
799152	GenFlex1p36_41	GA	AGTATGTTAATTAGTTATACAAATACCAAGGGG	ACTTAATATGCCCTGCCCTGTCATTC
799153	GenFlex1p36_56	GA	TCATCCTGCATGTCAGGC	ACAGTAAGGGGAGAGTAGCAAGAAATC
799154	GenFlex1p36_57	CT	GCAGTAACATAGTTTGCATCTGA	TGAATCAATGGGGTTGGGT
799155	GenFlex1p36_58	GA	TAACTAGGTTTGCATCTGATGGTG	TAGGTGAATCAATGGGGTTGG
799156	GenFlex1p36_60	GA	TAAACAAAGGATCTCACACTTGGC	TGACAAGTAAACAAGATTGGCAC
799157	GenFlex1p36_62	GA	AAGAAATGGAAGCATATGACTCTAAGC	AGTTGCTCAGCACTGTTTATAATCTG
799158	GenFlex1p36_64	GA	CCCCGTAGAGTCAAAAGCAC	TGAGGACGAATGGTTTCTTTC

Figure 11F

CHOP MARKERID	ORCH SOURCEID	SNP Alleles	PCR upper strand primer	PCR lower strand primer
799159	GenFlex1p36_66	GA	GATGGAGAAGCGATGTTTGC	ATTAGGAGACAATGACACTGACGTT
799160	GenFlex1p36_69	GA	TGGATGAGCAGTCAGAGAGTCTAC	CGTGCACACTCTCCAGTGG
799161	GenFlex1p36_72	GA	AATTCATCACCAGATATCTTGGG	GGCTCAAAGTAGGTTATCTAAATAATGG
799162	GenFlex1p36_77	GA	ATTGGGGTGACCAAGTCATG	ATAGCAACACTTGGACTCCGAA
799163	GenFlex1p36_87	GA	ACCAGTCCCCACACCCAC	TTTTCTGGCCTGTGAGGG
799164	GenFlex1p36_89	GA	CCTGGGACAGTTCAAGGG	TTAGTGGGACCCCTGGCTAT
799165	GenFlex1p36_90	CT	GACAGTTCAAGGGGCAAAG	AGCCACACTTAGTGGGACCC
799166	GenFlex1p36-11	GA	AATGTGGGAGGCACAGGAC	TGTTTTCAGAACCTGGAGAGG
799167	GenFlex1p36-16	GA	AGAACCTGTTCCACCTAAACCC	TCCTCATGGTGTCTGTGCA
799168	GenFlex1p36-21	GA	ATCCAGAGAGAGGCTTCAGAG	AAACCTTGCCTGTGATGTGTGG
799169	GenFlex1p36-28	GA	TGGTGGCAGTGGTTGGCTA	CCCAGCACACCTGCATGTA
799170	GenFlex1p36-29	GA	TAGATATGTCTGGGCATCGAGAA	ATACCATCATTTTCACAGGGAAAC
799171	GenFlex1p36-33	CT	TTGTGAATCCCATATCCAGGAA	AAAATGTCTAGAATGAAATCTGTTCTCTG
799172	GenFlex1p36-5	GA	ATGCTTTGGAATCATCTTTCTTCT	AAATTCAGCCCAGCCATCC
799173	GenFlex1p36-6	CT	AGCTGGATCATCAGGGTCTTC	TGCAGGAGATTGTGGTGG
799174	GenFlex1p36-63	GA	TGCTGCATAAATCTGCCAAT	ACCAATTTTCTTGAGGTTCCT
799175	GenFlex1p36-65	CT	ACGACGGAAAAGCCACAG	ATGTGTCCTCATGGAGAGGC
799176	GenFlex1p36-68	CT	TCTCACACAGCCTCAGAAGACC	AGCATAGCGTGGCTTACTTACTTATTT
799177	GenFlex1p36-79	GA	GCAGCCTGGTTCAGAGACAA	GGGGAAGGCACCCGTACA
799178	GenFlex1p36-80	CT	TTGTGGTGCGCCATCTA	TTGAATCCAGAGACACGGAAC
799179	GenFlex1p36-84	GA	AAGGTGGGAAAAGTGAAGCAA	ATGTCCACGTTGCATTCTGC
799180	GenFlex1p36-86	GA	TGGTTGATGCCCACTCCTAG	ATCCCGTCACTTGCCCTG
799181	GenFlex1p36-88	GA	ATGATGCCCTTCACCTTGAGC	ACCGCACCCCTCTGTGGAT
799182	GenFlex1p36-94	CT	AGCATCAGCACACTCAGCG	AGGGTGCTGGCAGTAGAGC



Figure 12A

<u>ORCHID MARKERID</u>	<u>CHOP ID</u>	<u>BASESDETECTED</u>	<u>dbSNPrs</u>	<u>TSC #</u>
799142	1p36:1	CT	rs1004176	TSC0079519
799144	15	GA	rs1472486	TSC0391823
799145	18	GA	rs1515670	TSC0774121
799146	2	CT	rs1010583	TSC0090145
799147	20	GA	rs1556036	TSC0442272
799148	3	GA	rs1016389	TSC0098952
799150	35	GA	rs1891215	TSC0915396
799151	4	GA	rs1029322	TSC0254184
799152	41	GA	rs1936377	TSC1003239
799153	56	GA	rs242058	TSC0923457
799154	57	CT	rs351602	TSC0733700
799155	58	GA	rs351603	TSC0724196
799156	60	GA	rs391674	TSC0198179
799157	62	GA	rs521736	TSC0913003
799158	64	GA	rs534159	TSC0246348
799159	66	GA	rs648152	TSC0887128
799160	69	GA	rs709209	TSC0201877
799161	72	GA	rs731031	TSC0018751
799162	77	GA	rs763195	TSC0118468
799163	87	GA	rs903910	TSC0181570
799164	89	GA	rs925744	TSC0241630
799167	16	GA	rs1473499	TSC0393409
799169	28	GA	rs1883605	
799179	84	GA	rs874668	TSC0205214

Figure 12B

MARKERID	SOURCEID	BASESDETECTED	dbSNPrs	Base # from T I
799057	16p-1	GA	rs765286	12052928
799077	3	CT	rs2541527	12401302
799086	4	GA	rs1097894	12603456
799113	7	GA	rs15379	13227352
799122	8	GA	rs2286974	13456164
799058	10	GA	rs889647	13855013
799059	11	GA	rs7102	14024351
799060	13	GA	rs33623	14323997
799062	15	GA	rs1704101	14645207
799065	18	CT	rs890893	14970181
799068	20	GA	rs1651007	15266253
799070	22	GA	rs1875383	15628534
799071	23	CT	rs6363	15835283
799072	24	GA	rs756983	16033731
799073	25	CT	rs916072	16130048
799074	27	CT	rs179600	16715550
799076	29	GA	rs2011209	17058052
799079	31	GA	rs1810125	17419561
799081	34	GA	rs2641824	17961654
799084	38	GA	rs881803	18821346
799085	39	GA	rs35628	19189473
799087	40	GA	rs371001	19385800
799089	44	CT	rs1010201	20692196
799093	48	GA	rs2100402	21759583
799095	50	GA	rs2270849	22564140
799096	51	GA	rs2352971	22749527
799097	52	GA	rs1156327	22929043
799098	53	GA	rs2301650	23279241
799100	55	GA	rs1557719	23617086
799138	56	CT	rs1925516	23763162
799101	57	GA	rs231932	24490442
799103	59	GA	rs2301620	24765609
799105	60	GA	rs2261412	24925504
799106	61	GA	rs741719	25122214
799108	63	CT	rs1469906	25475136
799139	65	GA	rs7764	26037466
799110	66	GA	rs1862648	26383143
799111	67	CT	rs194548	26836405
799112	69	CT	rs469430	27091470
799114	70	GA	rs294264	27381055
799115	71	CT	rs724466	27547487
799116	72	GA	rs250563	28173287
799118	74	CT	rs26763	28506212
799121	79	GA	rs960350	29339442
799123	80	CT	rs2033219	29685955
799125	82	GA	rs891122	30025271
799127	84	CT	rs1022454	30554318
799130	87	GA	rs982449	31292423
799132	89	GA	rs2188777	31664496
799134	91	GA	rs868440	32001379
799136	16p-94	CT	rs1017575	32938226